Amendments to the Claims

Please cancel Claims 1-3, 6-18, 20-23, 26-38, 40, 41, 47 and 48. Please amend Claims 4, 24, 42, 44, 45 and 46. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-3. [Canceled]

4. [Currently Amended] ~~The piston of claim 3 further comprising~~ A piston comprising:

a piston body having a circumferential groove;

a first seal ring located within the circumferential groove, the first seal ring forming a dynamic seal and having a flat axially facing surface;

a second seal ring located within the circumferential groove, the second seal ring having a flat surface abutting the flat surface of the first seal ring and forming a static seal against the piston body wherein the second seal ring is an L-ring that has a flange that abuts the piston body;

a load ring located within the circumferential groove; and

a spring located within the circumferential groove loading one of the seal rings axially against the other.

5. [Original] The piston of claim 4 wherein the spring axially loads the load ring against the first seal ring and the second seal ring.

6-18. [Canceled]

19. [Original] A piston comprising:

a body having a circumferential groove;

a first seal ring forming a dynamic seal located within the circumferential groove, the first seal ring having a flat axially facing surface and comprising at least one radial

spring mounted within a polymer split seal ring to create a radial force within the split seal ring;

a polymer L-ring forming a static seal within the circumferential groove, the L-ring having a flat surface abutting the dynamic seal and forming a static seal against the piston body;

a load ring mounted within the circumferential groove; and

a spring located within the circumferential groove, the spring loading the rings axially against the other.

20-23. [Canceled]

24. [Currently Amended] ~~The refrigerator of claim 23 further comprising~~ A refrigerator comprising:

a cylinder;

a displacer mounted within the cylinder, the displacer having a body having a circumferential groove;

a first seal ring located within the circumferential groove, the first seal ring forming a dynamic seal and having a flat axially facing surface;

an second seal ring located within the circumferential groove, the second seal ring having a flat surface abutting the flat surface of the first seal ring and forming a static seal against the piston body wherein the second seal ring is an L-ring that has a flange that abuts the piston body;

a load ring located within the circumferential groove; and

a spring located within the circumferential groove loading one of the seal rings axially against the other.

25. [Original] The refrigerator of claim 24 wherein the spring axially loads the load ring against the first seal ring and the second seal ring.

26-38. [Canceled]

39. [Original] A refrigerator comprising:

a cylinder;

a displacer mounted within the cylinder, the displacer having a body having a circumferential groove;

a first seal ring forming a dynamic seal located within the circumferential groove, the first seal ring having a flat axially facing surface and comprising at least one radial spring mounted within a polymer split seal ring to create a radial force within the split seal ring;

a polymer L-ring forming a static seal within the circumferential groove, the L-ring having a flat surface abutting the dynamic seal and forming a static seal against the piston body;

a load ring located within the circumferential groove; and

a spring located within the circumferential groove, the spring loading the rings axially against each other.

40-41. [Canceled]

42. [Currently Amended] ~~The method of claim 41 wherein the static seal ring is an L-ring~~ A method for securing a seal ring within a piston comprising:

providing a piston having a body having a circumferential groove and a sleeve mounted on the body;

providing a dynamic seal ring against the first groove wall of the piston, the seal ring having a flat axially facing surface;

providing a static seal L-ring within the circumferential groove, the static seal ring having a flat surface abutting the flat surface of the first seal ring and forming a static seal against the piston body;

providing a spring within the circumferential groove;

compressing the spring with a sleeve to axially load the static seal against the dynamic seal ring; and

attaching the sleeve to the body to maintain the compression of the spring.

43. [Original] The method of claim 42 further comprising providing a load ring between the L-ring and the spring.

44. [Currently Amended] ~~The method of claim 41~~ A method for securing a seal ring within a piston comprising:

providing a piston having a body having a circumferential groove and a sleeve mounted on the body;

providing a dynamic seal ring against the first groove wall of the piston, the seal ring having a flat axially facing surface;

providing a static seal ring within the circumferential groove, the static seal ring having a flat surface abutting the flat surface of the first seal ring and forming a static seal against the piston body wherein the static seal ring is a flanged load ring having a flange that abuts the piston body;

providing a spring within the circumferential groove;

compressing the spring with a sleeve to axially load the static seal against the dynamic seal ring; and

attaching the sleeve to the body to maintain the compression of the spring.

45. [Currently Amended] ~~The method of claim 41 wherein the dynamic seal ring and the static seal ring are polymers~~ A method for securing a seal ring within a piston comprising:

providing a piston having a body having a circumferential groove and a sleeve mounted on the body;

providing a polymer dynamic seal ring against the first groove wall of the piston, the seal ring having a flat axially facing surface;

providing a polymer static seal ring within the circumferential groove, the static seal ring having a flat surface abutting the flat surface of the first seal ring and forming a static seal against the piston body;

providing a spring within the circumferential groove;

compressing the spring with a sleeve to axially load the static seal against the dynamic seal ring; and

attaching the sleeve to the body to maintain the compression of the spring.

46. [Currently Amended] ~~The method of claim 41 wherein the dynamic seal ring is a split seal ring~~ A method for securing a seal ring within a piston comprising:

providing a piston having a body having a circumferential groove and a sleeve mounted on the body;

providing a dynamic split seal ring against the first groove wall of the piston, the seal ring having a flat axially facing surface;

providing a static seal ring within the circumferential groove, the static seal ring having a flat surface abutting the flat surface of the first seal ring and forming a static seal against the piston body;

providing a spring within the circumferential groove;

compressing the spring with a sleeve to axially load the static seal against the dynamic seal ring; and

attaching the sleeve to the body to maintain the compression of the spring.

47-48. [Canceled]

49. [Original] A method for securing a seal ring within a piston comprising:

providing a piston having a body having a circumferential groove and a sleeve mounted on the body;

providing a dynamic polymer seal ring against the first groove wall of the piston, the dynamic seal ring having a flat axially facing surface and comprising at least one radial spring mounted within a polymer split seal ring to create a radial force within the split seal ring;

providing a static polymer seal ring within the circumferential groove, the static seal ring having a flat surface abutting the flat surface of the dynamic polymer seal ring and forming a static seal against the piston body;

providing a spring within the circumferential groove;

compressing the spring with a sleeve to axially load the static seal against the dynamic seal ring; and

attaching the sleeve to the body to maintain the compression of the spring.

50. [Original] A method for securing a seal ring within a piston comprising:

providing a piston having a body having a circumferential groove and a sleeve mounted on the body;

providing a dynamic polymer seal ring against the first groove wall of the piston, the dynamic seal ring having a flat axially facing surface and comprising at least one radial spring mounted within a polymer split seal ring to create a radial force within the split seal ring;

providing a static polymer flanged load ring having a flange that abuts the piston body within the circumferential groove, the flanged load ring having a flat surface abutting the flat surface of the dynamic seal ring and forming a static seal against the piston body;

providing a spring within the circumferential groove;

compressing the spring with a sleeve to axially load the static seal against the dynamic seal ring; and

attaching the sleeve to the body to maintain the compression of the spring.